

Agenda

3:00 - 3:30 Communication

3:30 - 4:00 Math Concepts

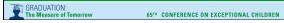
4:00 - 4:10 Break

4:10 - 4:30 Lesson Planning



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Communication



Communication

"Not being able to speak is not the same as not having anything to say"
Rosemary Crossley, Australian educator



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Communication

- Everyone MUST have it!
- Everyone MUST have access to a standards-based education



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Communication Bill of Rights

Each person has the right to

- request desired objects, actions, events and people
- refuse undesired objects, actions, or events
- express personal preferences and feelings
- be offered choices and alternatives
- reject offered choices

From the National Joint Committee for the Communicative Needs of Persons with Severe Disabilities. (1992). Guidelines



What to Consider when Choosing a Communication Strategy

- Educational team and family should collaborate and agree on the communication strategy
- Create a communication dictionary
- Consider the language level of the student

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What to Consider when Choosing a Communication Strategy

- Students with multiple disabilities to include deaf-blindness will need extensive and consistent input to attach meaning
- Determine what is working, what needs to be changed and what needs to be added to communication system



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Processing is Important!

What's Going In?



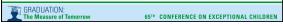
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Auditory Input

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Auditory Input

- Sound Awareness
- Spoken Language
- Listening
- Auditory Processing



Visual Input 65™ CONFERENCE ON EXCEPTIONAL CHILDREN

Visual Input

- Pictures
- Objects
- Sign language



Tactile Input







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Tactile Input

- Textures
- Objects
- Sign language
- Touch Cues



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Touch Cue http://iii/photos.netlen/image.141-219532-hand_women_fouching_hand_man_images GRADUATION: The Measure of Tomorrow 6511 CONFERENCE ON EXCEPTIONAL CHILDREN

Touch Cue

- A touch made in a consistent manner directly on the body to communicate with a child
- A simple means of receptive communication in the early stages of communication
- Not based on a standardized system Example:

Touching one side of a child's mouth to indicate time to eat



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How is it Getting Out?



Julie Brickhouse Eastern Elementary School Greenville, NC

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Expressive Communication Visual Tactile The Center for Literacy and Disabilities Studies SRADUATION: The Measure of Tomorrow 6514 CONFERENCE ON EXCEPTIONAL CHILDREN



The Communication Matrix (Charity Rowland)

- Communicative behavior 0 24 months of age
- Paper and electronic version SAVE PASSWORD!!!
- Educator and Family versions (English, Spanish, Chinese, Russian, Korean, Vietnamese)
- Customized Reports

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Communication Matrix

7 levels of Communication

- Pre-intentional
- Intentional
- Unconventional
- Conventional



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Communication Matrix

- Concrete Symbols
- Abstract Symbols
- Language



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Communication Matrix

9 Categories of Communicative Behavior

- Body movements
- Early Sounds
- Facial expressions
- Visual
- Simple gestures



Communication Matrix

- Conventional gestures & vocalizations
- Concrete symbols
- Abstract symbols
- Language



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Pre-Intentional Behavior Level 1

- Facial Expressions
- Body Movements
- Sounds



Intentional Behavior Level 11

- Facial Expressions
- Vocalizations
- Eye Gaze



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Unconventional Communication Level 111

- Gestures/ Movements
- Vocalizations
- Facial Expressions
- Eye Gaze



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Conventional Communication Level IV

- Pointing
- Nodding
- Shaking head
- Looking from person to object



Concrete Symbols Level V

- Object Cue
- Parts of Objects
- Miniatures



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Object Cue

Objects

- Provides a concrete way to support communication interactions
- Provides a multisensory approach to language learning
- Can be both receptive and expressive



Objects

- Not a lot of demands on memory and vision
- Consider the student's physical ability in order to determine if objects are appropriate
- Make sure the objects have meaning to the student and are of high interest



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Object Schedule



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Object Choice Board



www.mast.ecu.ed

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Parts of Objects

 Parts of objects can be used for communication but should be based on meaningful tactile information



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Miniatures Intgr/web4 holdsylinc convignation/scirit/0778 286 ppg GRADUATION: The Measure of Tomorrow 851 CONFERENCE ON EXCEPTIONAL CHILDREN

Miniatures

 Miniature objects hold no meaning to students without functional vision but may be meaningful concrete examples for students who have adequate vision



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Abstract Symbols Level VI

- Tangible Symbols Cards
- Photographs
- Line Drawings
- Manual Signs



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Abstract Symbols Level VI

- Textured Symbols
- Tactile Symbols Sets
- Braille or Print
- Augmentative Communication (AAC)
- Speech



Tangible Symbol Cards

- Tactile, representations of activities, objects, places, events, or people
- Used for receptive and expressive communication
- Tangible symbols are permanent
- Can be held in the hand or physically transferred from one place to another
- Range in their level of abstraction



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Tangible Symbol Cards

- · Consider the student's interests
- · Sensory Needs or limitations
- Receptive and expressive language level
- Student's visual impairment
- Student's fine and gross motor skills
- · Pair with Braille or Print



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Tangible Symbol Cards





Perkinslearning.org Closingthegap.com

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Photographs

- Vision is required
- Photograph can bridge between use of objects and line drawings
- Photographs can be arranged on Velcro boards, books, cards, or placements
- Photographs can be used for choice making, picture schedules, following a recipe, communication and social opportunities



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Photographs

- Photographs of single items are concrete in their representation
- Photographs are more abstract when there is multiple information
- Textured can be added to photographs for students with visual impairments
- Must consider the size, color, contrast and clutter



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Line Drawings (pictures)



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Line Drawings (pictures)

- Black and white or color drawings of items, activities, animals or people
- Visually refer to what they represent
- Can be abstract
- Pictures can be concrete if it closely resembles what it represents



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Signs on Body



www.projectsalute.net

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Sign on Body

 A standard manual sign that a signer produces directly on the receiver's body instead of on his/her own body



Coactive Signing Coactive Signing www.projectsalule.ret The Measure of Tomorrow 65^{TN} CONFERENCE ON EXCEPTIONAL CHILDREN

Coactive Signing

 Physical guidance of the child's hand(s) to facilitate production of a standard manual sign for expressive communication



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Tactile Signing Figurations Biograph.com Signations Biograph.com Sig

Tactile Signing

 Communication method based on a standard manual sign system in which the receiver's hand(s) is placed lightly upon the hand(s) of the signer to perceive the signs



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Textured Symbols



www.projectsalute.ne



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Textured Symbols

- Abstract communication system using textures such as plastic and cotton
- Represents activities, people and items



Tactile Symbol Set

- Designed for individuals who are totally blind or have very limited use of their residual vision
- Student should be a purposeful and intentional communicator



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Tactile Symbol Set

<u>Function</u>	<u>Shape</u>	<u>Textur</u>	<u>e</u>	Color	
Pronouns Verbs Adjectives Nouns	Octagon Triangle Heart Square	Laminate Felt Bumpy Smooth	Orange	Pink Blue Yellow	
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Examples of Using Tactile Symbol for Communication









Expressive Communication GRADUATION: The Measure of Tomorrow 65™ CONFERENCE ON EXCEPTIONAL CHILDREN **Braille or Print** • Abstract Symbol systems • Made of letters or tactile (dots) characters • Speech 65™ CONFERENCE ON EXCEPTIONAL CHILDREN **Symbols Concrete or Abstract Level VII** • Combine two-three symbols

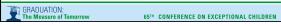
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"want juice" "me go"

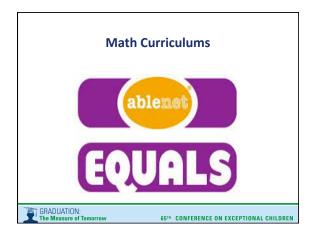
Math 65TH CONFERENCE ON EXCEPTIONAL CHILDREN

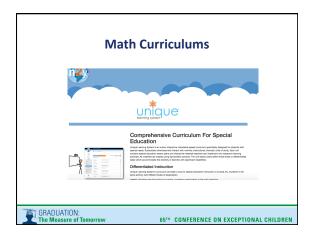
Math Concepts

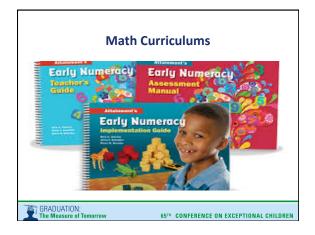
- Rote Counting
- Identifying and Comparing Numbers
- Addition/Subtraction
- Units of Measurement
- Patterns
- Time and Money
- Shapes (Geometry)



Revised Curriculum Guide	2013		August/September		
	Essential Vocabulary				
ELA - Understand story details, tex	ELA: book, front cover, title, author,				
Math - Counting and Number ident	Math - Counting and Number identification				
Science - Earth Systems: Changing	ng weather and changing landform	s	Math: one, more, zero, how many, less, equal, total, same Science: rainy, sunny, cloudy, snowy		
Social Studies - Civics: Class exp	hot, cold, weather, seasons, earth, soil, rocks, environment Social Studies: rules, share, manners, communicate, consequence expectations				
What do stude	Learning Targets ents need to be able t		Assessment and Data		
ELA Common Core	Math Common Core	Science Essential Standards	Social Studies Essential Standards		
Recognize text structure: K.4. With prompting and support, ask a reader about unknown words in a text. K.5. Identify the front cover of the book.	Number names and counting sequence: K.1. Understand number words as representing a quantity. K.2. Understand the concept	Identify physical properties of objects: EX.K.P.2 Identify objects by their physical properties. Understand characteristics of	Understand the expectations of group participation: EX.K.68G.1.1 Demonstrate joint attention with a peer. EX.K.68G.1.2 Follow simple classroom expectations (e.g., keep		







Math and Literacy

- Address different math concepts each time you read the book
- Create shared math activities



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Literacy is Everywhere!!





https://s-media-cache-ak0.pinimg.com/236x/c1/a3/cb/c1a3cbbdcda0e5216cb1c2aa891bfb12.jpg http://www.nerkins.org/assetc/images/heaching.resources/educational.nublications/sect_tod_tom275_



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Math and Literacy

- Charts/Graphing
- Voting
- Counting
- Grouping
- Money
- Measurement



Math and Literacy The Grouchy Ladybug Enc Confo Louise Power GRADUATION: The Measure of Tomorrow 6518 CONFERENCE ON EXCEPTIONAL CHILDREN

Math Stories

Elementary Book Examples:

- Three Little Pigs
- Ten Apples on Top by Dr. Seuss
- The Hungry Caterpillar
- Pete the Cat- Buttons Book



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Math Stories

- One Fish, Two Fish, Red Fish, Blue Fish
- The Mittens
- Goodnight Moon
- If You Give a Mouse a Cookie



Math Stories

Middle/High School Math Book Examples:

- The True Story of the Three Little Pigs
- Spaghetti and Meatballs For All
- Start to Finish Literacy Starter stories
- Tarheel Reader Stories
- The Swamp



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• Share math stories you have used with your grade level.



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Embedded Instruction



Embedded Instruction If a child can't learn the way we teach, maybe we should teach the way they learn. Ignacio Estrada GRADUATION: The Measure of Tomorrow 6514 CONFERENCE ON EXCEPTIONAL CHILDREN

Embedded Instruction

- Infuse content areas of NCSCOS Extended Essential Standards together into interactive lessons.
- Address time efficiency to manage learning, behaviors, on-task time
- Create framework to allow integration of areas of need
- Cover concepts in your daily schedule



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Embedded Math Instruction



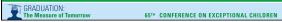






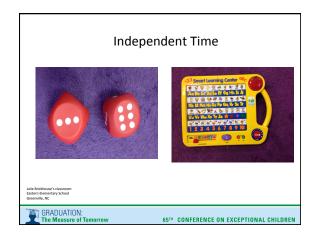
Academic Areas

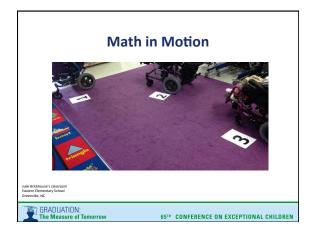
- Science
- Social Studies
- Word Study
- Writing

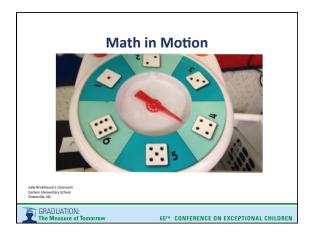


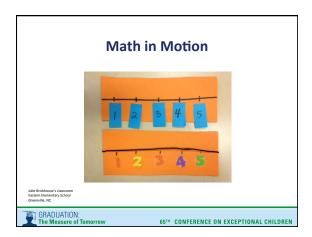
- Art Music • P.E. • Media 65™ CONFERENCE ON EXCEPTIONAL CHILDREN
- Bathroom Dressing 65™ CONFERENCE ON EXCEPTIONAL CHILDREN









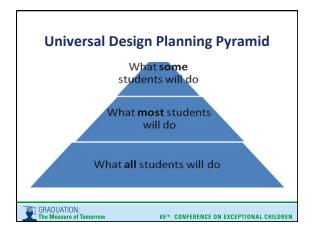


Share ways you have embedded math into your instruction.

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Universal Design for Learning GRADUATION: The Measure of Tomorrow 65^{TN} CONFERENCE ON EXCEPTIONAL CHILDREN



Universal Design for Learning

- Focuses on differentiation instruction
- Provides cognitive clarity
- Specifically design instruction for students
- Provides a way for the curriculum to fit our students

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Principles of Universal Design for Learning

Provide multiple, flexible means of:

- Representation
- Expression
- Engagement



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Multiple Means of Representation





Patsy Pierce, Center for Literacy and Disability Studies, UNC-CH Carol Huston, Janet Franklin, Assistive Technology Resource Center, J. Iversor



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Experience Book

A book that:

- Relates to the <u>experiences</u> of a <u>specific</u> individual.
- Uses the <u>communication methods and</u> <u>materials</u> most easily understood by the individual.
- Presents <u>content</u> is at a level that is <u>most</u> <u>relevant and best understood</u> by the individual.

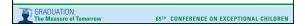
Terry Rafalowski Welch, PhD



Experience Book Amber S Christmas Book http://www.pathstolleracy.org/strategies/creating-stacile-experience-books GRADUATION: TRAMMasure of Tomorrow 65TM CONFERENCE ON EXCEPTIONAL CHILDREN

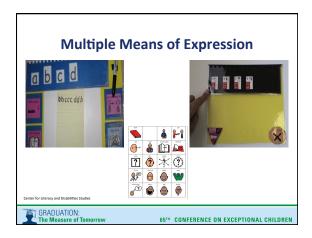
Adapted Books

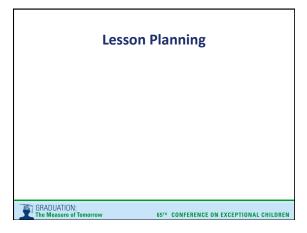
- Powerpoint books
- Printed Powerpoint books
- Textualized books
- Store bought books (scanned, laminated and textualized)











Bring It All Together

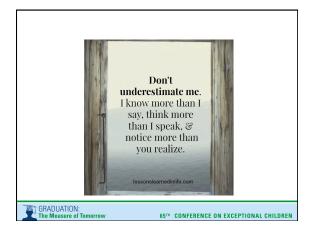
Create a math lesson plan around a book in your grade level to include:

- NC Extended Content Standards
- Literacy
- Communication
- Math
- Adaptions (tactile)



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Lesson Palans Lason Palandgead from Lindersanding by Design Lesson Formet by Routed Layrens, Authority Thornward, and Claim Great. **Plantanial Contents Standard Lases Palan **Linderside Contents Standard Lanes Palanderside Contents Standard Lanes L









National DB Equipment Distribution Program http://www.lcanconnect.org/north-carolina

- Enables low-income individuals with DB to access 21st Century communication and information
 - Braille Devices, Computers, Mobile Devices, Phones, Signalers, Software
 - Installation, training, and tech support
- Income eligibility
 - Single person up to \$44,680
 - Family of four up to \$92,200
- 1-800-825-4595 for additional info



services







Please contact us:

Andrea Blackwood
Technical Assistance Coordinator, ECU TSP
<u>blackwooda@ecu.edu</u>
Sandra Warren
Director, ECU TSP

warrens@ecu.edu

Julie Brickhouse Technical Assistance Cadre, ECU TSP

brickhousej@pitt.k12.nc.us

